



# UNITED STATES PATENT AND TRADEMARK OFFICE

H.A

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/673,182

09/30/2003

Seuk-Jin Yun

1349.1291

1252

21171

7590

08/02/2006

STAAS & HALSEY LLP

SUITE 700

1201 NEW YORK AVENUE, N.W.

WASHINGTON, DC 20005

EXAMINER

NGUYEN, LAM S

ART UNIT

PAPER NUMBER

2853

DATE MAILED: 08/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/11/2006 has been entered.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 5-6, 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Ogasahara et al. (US 2002/0054305 A1).

#### **Referring to claim 5:**

Ogasahara et al. discloses an apparatus that corrects a white line of an inkjet printer, comprising:

a driving section which positions a paper (*FIG. 37A-C: SHEET*) at printing positions including a normal position and an overfeeding position corresponding to an over feed amount of the paper (*Fig. 19A-B: A normal position is the area of the sheet which is ensured that sheet is fed accurately. An overfeeding position is the area (white stripe area) of the sheet that is not ensured that sheet is fed accurately*), and drives an ink cartridge in response to control signals to print a line;

a memory and control section which stores the overfeeding position and outputs the

control signals (*paragraphs [0235], [0236]; page 15, table 1: A corresponding memory stores the feeding error during each feeding operation. Paragraph [0298-0300]: A corresponding controller shifts the range of ejection ports (nozzles) in accordance to a known error in each pass that is stored in table 1*);

a plurality of nozzles, in the ink cartridge, printing a normal printing area in a preset printing width (*FIG. 40: Normal ejection ports 256*), and

a plurality of dummy nozzles, in the ink cartridge, printing in the overfeeding position (*paragraph [0298]: Correcting sheet feeding error by using back up ejection ports (nozzles). FIG. 40: BACKUP EJECTION PORTS*),

wherein if the printing position is just before the overfeeding position, the dummy nozzles print a width corresponding to the overfeeding amount together with all of the nozzles printing the normal printing area corresponding to the entire preset printing width (*Paragraph [0349]: When the second area (overfeeding position) is subjected to printing, the range of printing elements (nozzles) includes the same range of printing elements (nozzles) used for printing the first area (normal position) and printing elements (nozzles) different from those used for printing on the first area. In other words, the nozzles used in case of overfeeding include all nozzles used for normal printing in a preset width printing and backup nozzles (dummy nozzles) for printing on the overfeeding area*).

**Referring to claim 6:** wherein the ink cartridge repeatedly performs reciprocal left and right movements in response to the control signals (*FIG. 2*).

**Referring to claim 9:** wherein the nozzles and the dummy nozzles are formed in the underside of the ink cartridge (*FIG. 40, element HEAD*).

**Referring to claim 10:** wherein the printing is implemented by the nozzles located in a printing area retreated from the normal printing area by the width of the dummy nozzles until the printing is terminated starting from the line positioned just after the overfeeding position (*FIG. 37B-C, and 40*).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 11-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogasahara et al. (US 2002/0054305 A1) in view of Yamasaki et al. (US 2003/0048326 A1). (*For rejection regarding to claims 2 and 4, please refer to claim 10*).

Ogasahara et al. discloses the claimed invention as discussed above and also teaches a pickup roller to pick up a paper when a printing command is inputted (*FIG. 43A-B, elements 3A-B*), judging whether a leading edge of the paper enters using a paper-detection sensor and transferring the paper to the printing position (*paragraph [0332]*), implementing the printing using dummy nozzles which are not used in the printing of the sequential implementing operation (*Fig. 40: Backup ejection ports are not used when the sheet feeding error not occurring*), in such a way that the printing is performed for the overfeeding amount judged in the judging operation as well as for the printing width of the sequential implementing operation, when the line positioned just before the overfeeding position judged in the judging operation is printed (*FIG. 40: when the sheet feeding error occurring, both the normal and backup ejection ports are implemented to print the preset printing width*).

However, Ogasahara et al. does not disclose judging a stored characteristic overfeeding amount and characteristic overfeeding position corresponding to the paper by determining a type/material of the paper being used.

Yamasaki et al. teaches that the precision of the sub-scan feed of a printing medium depends on the type of the printing medium. For example, the actual feed amount (overfeeding or underfeeding amount) may vary considerably between printing media with easy-slip surfaces and printing media with

surfaces that do not slip easily (*paragraph [0005]*) or between printing medium having different materials such as ordinary paper, glossy film, photographic paper (*FIG. 14*), wherein the error amount reflected by correction values are stored in a look up table (*FIG. 14*).

Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to modify the controller disclosed by Ogasahara et al. to also consider the type of the printing medium in determining the error feeding as disclosed by Yamasaki et al. The motivation for doing so would have been to ensure the degree of precision of the paper feed in order to obtain great effect on the image quality as taught by Yamasaka et al. (*paragraph [0006]*).

### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 3, 5, and 11 have been considered but are moot in view of the new ground(s) of rejection. The new ground rejection is made based on the same previously cited prior art with new citations.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAM S. NGUYEN whose telephone number is (571)272-2151. The examiner can normally be reached on 7:00AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, STEPHEN D. MEIER can be reached on (571)272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

Art Unit: 2853

system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Lam Son Nguyen', with a stylized, cursive script.

LAM SON NGUYEN